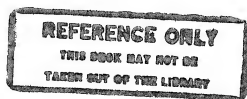


Consultative Document

*Issued by the Director General of
Telecommunications*



The Operation of BT's Signatory Affairs Office and Competition in the Satellite Services Sector

1 INTRODUCTION

1.1 This document considers and seeks comment upon a wide range of issues affecting the future operation of BT's Signatory Affairs Office (the SAO).

1.2 The SAO was established within BT in November 1989 to process requests for satellite capacity with INTELSAT and EUTELSAT from the six newly licensed specialised satellite service providers, from Kingston Communications (Hull) plc and from BT's own commercial satellite operations. Before the licensing of these independent service providers, announced in May 1988, the role and functions of Signatory to INTELSAT and EUTELSAT had been wholly performed by BT's Satellite and Lines Directorate. With the introduction of competition to BT in the provision of satellite services there was seen to be a clear conflict of interest between BT's commercial interests and its function in allocating satellite capacity to other UK users.

1.3 Following a review the Director General at the time agreed to the creation of the SAO as a separate entity within BT, distinct from its operational and commercial activities, to ensure that the Signatory function was carried out in a way that prevented the potential conflict of interest from distorting competition. A copy of the document describing the arrangements agreed between OFTEL and BT in 1989 is attached as Annex A.

1.4 The Director General's statement of 28 November 1989 announcing the new SAO arrangements made it clear that they were regarded as an interim measure only, until the INTELSAT and EUTELSAT Operating Agreements

could be amended to permit or require them to deal direct with non-Signatories, and that both BT and OFTEL would review the arrangements once they had bedded down to ensure that they were operating to the satisfaction of the parties concerned.

1.5 In conducting the review envisaged by the 1989 arrangements, OFTEL has taken into account discussions with, and written submissions made by, BT, the satellite service operators (SSOs) and potential SSOs and other interested parties. A list of those consulted as part of the review is at Annex D.

1.6 This review has covered a number of areas:

- the SAO's day to day operations and how these impact on the SSOs;
- the proposals to emerge from BT's own review;
- the scope for immediate improvements in the current arrangements against the background of the restrictions imposed by the Operating Agreements governing INTELSAT and EUTELSAT; and
- the longer term issue of the future of the SAO; although this question properly falls to the Secretary of State to consider, as HMG is the Party to the international satellite consortia and thus nominates the Signatory, the future structure of the SAO is of such fundamental importance to the SSOs that it was thought essential to include a consideration of the options as part of the review.

1.7 The key objective that has motivated this review has been to ensure that the intention of the Secretary of

State, in granting the original specialised satellite service providers licences, of promoting competition in the provision of telecommunication services by satellite continues to be supported by the regulatory framework for the acquisition of space capacity within which the new and independent service providers have to operate.

1.8 The period of the review has seen much change, in INTELSAT and EUTELSAT themselves, in the licensing of those independent operators that offer telecommunication services via satellite, and in the range of services they offer. These developments are touched on in more detail in Section 3 of this document. In view of these changes, in view of the time that has passed since the review began, in view of the crucial importance to the independent operators of easy and sure access to the satellite capacity they need to run their businesses, and in view of the complex nature of some of the questions raised, we have decided to publish our suggestions for change as proposals only at this stage and to invite comments on them from interested parties. These proposals are summarised in the following section.

1.9 This Consultative Document is divided into sections as follows:

- 1 Introduction
- 2 Conclusions and summary of proposals
- 3 The UK satellite section and access to space capacity
- 4 SSSOs' operational experience of the SAO
- 5 BT's proposals
- 6 The future of the SAO: Options for change
- 7 The operation of the SAO: Short term changes

Annexes A-I (listed after section 7)

2 CONCLUSIONS AND SUMMARY OF PROPOSALS

2.1 The single major conclusion that we have drawn from this review is that the arrangements for allowing the SSOs access to space capacity they need to conduct their businesses have been fundamentally unsatisfactory, though we recognise that much of the difficulty lies in the nature of the international consortia and the way in which they have required Signatories to act. Satellite capacity is in the short term at least a relatively scarce resource, and while access to it remains under the control of the SSOs' major competitor the situation will give rise to concerns, real or imaginary. The longer we have considered the issues the more we are convinced that direct access to the

international consortia remains the solution that will best meet the SSOs' reasonable needs and contribute to the development of a competitive, vigorous and innovative satellite services market in the UK.

2.2 During the course of this review significant changes have been proposed in the way that both INTELSAT and EUTELSAT conduct their business. These changes will, if implemented in a sound and commercial way, go a long way to ensuring the liberalisation of the market for satellite capacity. This document acknowledges these changes, and the proposals it makes seek to guarantee that if they do not materialise in the way we hope, 'failsafe' arrangements to protect the legitimate interests of the SSOs are in place, and to ensure that areas not covered by the consortia proposals are adequately dealt with.

2.3 During the long period of the review OFTEL has had the wholehearted participation of BT, which has itself been keen to see changes to the way in which the SAO operates. While not always sharing OFTEL's analysis of individual issues, BT has shown itself willing to promote change, especially change that serves to promote direct access and reduce its role as regards the independent operators, where it is appropriate, both within the consortia and within the SAO.

2.4 The detailed proposals which are outlined below, while admittedly only offering partial solutions to the various issues that have arisen, take account of the flawed nature of the existing arrangements and also recognise the need, in the interests of continuing to promote greater competition in this market sector, to ensure that the SSOs have greater confidence in the operation of the SAO.

2.5 The detailed proposals on which OFTEL is seeking views as a result of this review are as follows:

- (a) that BT should not be allowed to seek investment share contributions at this stage (5.2.17)
- (b) that BT be allowed to require independent operators to have adequate indemnity insurance arrangements to meet liabilities that might otherwise fall on BT as Signatory (5.3.10)
- (c) that BT should be allowed to charge the reasonable costs of copying documentation supplied in response to a request for information that does not lead to the acquisition of space capacity (5.4.4)
- (d) that BT's main operating licence should be modified to bring its activities relating to the provision of satellite capacity within its ambit (6.6.3(a))
- (e) that BT should establish appropriate arrangements for the preparation and publication of separate financial statements for all of the Signatory functions, including

those relating to BT's acquisition of space capacity for its own business, on a basis to be agreed by OFTEL (6.6.3(b))

- (f) that the licence modification should include a provision to the effect that it would be a licence breach for BT staff involved in the SAO to reveal confidential information to those not directly employed in SAO activities (6.6.7(a))
- (g) that OFTEL and BT should explore the scope for greater separation between the SAO and the remainder of the company, and especially its Visual and Broadcast Services business (6.6.7(b))
- (h) that the DTI presses ahead within EUTELSAT towards the objective of direct access and works to ensure the moves within INTELSAT to enable direct access become a practical reality (6.6.9)
- (i) that the SAO should process INTELSAT earth station approvals following mandatory testing supervised by operators themselves or by third parties (7.2.9)
- (j) that on the basis BT is willing to make detailed changes to tighten procedures to meet legitimate concerns and to recognise the differing preferences of individual SSOs and their banks, BT should be allowed to continue to seek bank guarantees or other forms of security (7.3.8)
- (k) that the SAO considers the scope for streamlining its range of contractual agreements within a reasonable timescale. OFTEL would expect draft contracts to be the subject of discussion with the SSOs and to be publishable (7.3.12)
- (l) that in future OFTEL would expect significant changes to the contractual documents issued by the SAO to be made only after agreement has been reached by both sides (7.3.14)
- (m) that the SAO draw up a concise and comprehensive outline of its duties and responsibilities, including where appropriate its contractual obligations, for circulation to both the SSOs and potential market entrants (7.3.17)
- (n) that BT's offer of further discussions on the distribution of consortia information be pursued, with the aim of achieving the widest possible distribution of such information to the SSOs (7.4.5(a))
- (o) that OFTEL should consider with the SAO the arrangements for the SSOs' attendance at certain consortia meetings, particularly the Traffic Planning meetings (7.4.5(b))
- (p) that OFTEL should consider with the SAO arrangements to ensure that the views of the SSOs be

taken into account by the UK Signatory at consortia meetings (7.4.5(c))

- (q) that DTI considers strengthening its own arrangements to ensure that the views of the SSOs are more directly taken into account in formulating the UK position at consortia meetings (7.4.6)
- (r) that the SAO be required to agree with OFTEL, publish and adhere to a code of confidentiality with regard to customer information (7.4.7)
- (s) that the SAO should agree to make tariff information available on demand to both operators and potential operators (7.4.8(a))
- (t) that the SAO commences the preparation of financial statements, beginning with the forthcoming financial year, on a basis to be agreed with OFTEL; the information that is produced should be freely available to the independent operators (7.4.8(b))
- (u) that it should be made clear to all those who are active in the satellite market that there are no regulatory inhibitions to the sub-leasing of reserved space capacity to third parties (7.5.2)
- (v) that the SAO review its internal challenge procedures in order to ensure that they provide complete independence in the allocation of capacity and that they would prevent further such disputes as arose over the EUTELSAT II booking. The procedures would then be published, in a manner to be agreed with OFTEL. As part of any revised challenge procedure, we would expect to see a reference to an independent arbitrator as the final step in any unresolved dispute (7.5.4).

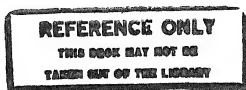
2.6 These are only interim measures and there will be a good case for reviewing the SAO again, after a further three to four years, or earlier if the pace of change within the consortia so dictates, to ensure that the regulatory framework continues to be appropriate to the needs of the market.

2.7 OFTEL recognises the overdue nature of this document and the need to introduce changes as quickly as possible. Comments on the proposals should be received by 30 September and sent to:

Mr E James
OFTEL
Room 201A
50 Ludgate Hill
London EC4M 7JJ



OFTEL's intention is to make submissions available in the OFTEL library unless commentators expressly indicate that their comments should not be published.



3 THE UK SATELLITE SECTOR AND ACCESS TO SPACE CAPACITY

3.1 The international satellite consortia and BT's role

3.1.1 Three international satellite consortia, INMARSAT, INTELSAT and EUTELSAT exist for the purpose of creating and providing satellite capacity for the reception and transmission of signals. As the independent satellite service providers have thus far principally used capacity provided by INTELSAT and EUTELSAT, this document focuses on the SAO's arrangements with respect to these two organisations. Both are established by inter-governmental treaty creating rights and obligations binding on the States which are Parties to them. The Department of Trade and Industry (DTI) represents the United Kingdom at the Assembly of Parties, and considers the general policy and long term objectives of the organisation, within the framework set by the principles and other provisions set out in the relevant treaty. In addition, each treaty requires the Party to designate a Signatory – usually the public telecommunications entity in its country – which signs the Operating Agreement. The Signatories are responsible for the management of the organisation including the design, development, construction, acquisition, operation and maintenance of the organisations' satellites. An outline of the organisational structure of both EUTELSAT and INTELSAT is at Annex C.

3.1.2 The Signatories are also responsible for the financing of the satellite organisation by means of contributions to the capital investment in proportion to their use of the system and by utilisation payments for the services as they are used. The treaties provide for Signatories to receive compensation for the use of capital invested in the consortia and the current target rates of return are 17% for EUTELSAT and 16% for INTELSAT. The Operating Agreements require all requests for space capacity to be submitted by the Signatory. A table showing the UK's investment share in both consortia and the relationship between the consortia, BT, DTI and the independent operators is at Annex B.

3.1.3 Both the INTELSAT Agreement and the EUTELSAT Convention provide for 'economic and technical harm' consultation procedures which impose an obligation on Parties and Signatories to consult with the organisation if they intend, or become aware that another person within their jurisdiction intends, to operate a competing satellite system. The INMARSAT Convention makes similar provision but requires 'notification' only.

These procedures, while they have recently been streamlined such that consultation requests are treated virtually as notifications, have the effect of giving the international consortia the ability to block or, at the very least, to delay the provision of competing satellite capacity and thus to protect the interests of the organisation and its Signatories (though no request to permit the use of competing systems has been refused on economic harm grounds). In effect, while the ability to block or delay the provision of competing systems exists it is more likely to introduce an element of uncertainty to potential investors in competing systems. While there is some competition to the international consortia in the provision of capacity from independently operated satellites such as Astra and PanAmSat, our understanding is that the relatively low capacity of such systems mean that the current competitive effect is minimal.

3.1.4 The INTELSAT Agreement, signed by the United Kingdom in 1971, has as its objective the provision of communications by means of satellites to all nations of the world on a global and non-discriminatory basis. All Governments of States which are members of the International Telecommunications Union (ITU) (and are thus members of the United Nations) are eligible to sign the Agreement. The EUTELSAT Convention, signed in 1983 has as its objective the provision of international public telecommunication services in Europe. Membership is limited to European States which are members of the ITU. There are currently 36 signatories to the EUTELSAT Convention and 125 signatories to the INTELSAT Agreement. BT, as the designated Signatory to both satellite consortia, has responsibility for UK Signatory policy, and for providing the UK representatives for Board meetings.

3.1.5 Special arrangements allowing Cable & Wireless direct access to INTELSAT were drawn up some time ago, predating BT's privatisation in 1984. This was in recognition of the fact that Cable & Wireless was an investor and user of INTELSAT space capacity in its own right through its overseas interests. Following the granting of Mercury's PTO licence in 1984 arrangements were concluded in 1988 allowing it to deal directly with INTELSAT and EUTELSAT. The tripartite arrangements between BT, Mercury and INTELSAT/EUTELSAT allow Mercury to submit its requests for earth station approval and for space capacity utilisation directly to the consortia instead of via the Signatory. In addition, Mercury by agreement with BT attends Signatory meetings as an observer with the UK delegation. The special position of Mercury, which pre-dates the liberalisation of satellite services in the UK, has not formed part of this review except to the extent that its experience of the international consortia has proved relevant to the SSOs.

3.2 Development of the independent service providers

3.2.1 Prior to 1984, BT enjoyed a statutory monopoly in the provision of telecommunications services via satellite in the UK. The Licence granted in 1984 to Mercury introduced a potential competitor, but for a number of reasons Mercury chose not to develop the provision of satellite services to customers in the same way that BT had. In October 1988, as the first step in a progressive liberalisation of the UK satellite service sector, the Government awarded six licences for the provision of one-way, point to multi-point specialised satellite services to the Specialised Satellite Service Operators (SSOs). In addition, Kingston Communications (Hull) plc was authorised to provide specialised satellite services on the same basis. The licences were intended to limit service to the UK but following pressure from the potential operators the service area was widened in November 1989 to include Europe. In addition, the SSOs were authorised to receive messages and re-transmit them on behalf of customers.

3.2.2 Following the conclusion of the duopoly review the Government issued, in August 1991, a class licence for the provision of two-way satellite services not connected to the Public Switched Network, and in early 1992 it announced that it was willing to issue individual licences allowing operators to provide two-way satellite services, including passing messages over the PSTN, though excluding connection at both ends for international voice traffic. In fact the Secretary of State for Trade and Industry has now granted two such licences – to PanAmSat and E-Sat – and is considering applications for similar licences from a number of other applicants. The SAO has indicated that 42 independent satellite operators have signed agreements with it; of these 28 have sought Earth Station approvals while 18 have acquired space segment capacity.

3.2.3 This level of interest reflects a generally optimistic view of the market in the provision of satellite services and its future. Apart from the provision of satellite news gathering facilities, which tend to be heavily subscribed at times such as the Gulf War and the General Election, the independent service providers have tended to concentrate their attention on attacking niche markets with relatively high added value. The classic example in the UK of the use of satellite facilities to provide innovative market-led services is perhaps SISLink's live relay of horse and greyhound racing, including commentaries and related information, from courses in the UK to participating betting shops. Other services provided using satellite-based facilities tend to involve the lower-profile distribution of information, often internationally, amongst a closed user group, and on a point-to-multipoint basis. These services include business TV for large multi-nationals, point to point data links, data distribution and

broadcasting and corporate communications.

3.2.4 The size of the independent satellite service market is difficult to determine. There have been industry estimates that such service providers have taken roughly 0.5% of the European telecommunications market, some \$350m a year. In the US, where the liberalisation of satellite services is much further forward, they account for 2–3% of the total telecommunications market. Assuming for the sake of illustration that the independent service providers take no more than 1% of the UK telecommunications market, they would still have a turnover of some £140m a year. Although precise information is difficult to obtain, it can be seen from Annex E that BT accounts for 80% of the use of EUTELSAT capacity in the UK. While this clearly ignores other satellite capacity (ie INTELSAT and competing private sector satellite operators such as SES) and includes capacity attributable to telephony services, it is as accurate an indicator of BT's market dominance as is available in the circumstances.

3.3 Recent developments in the international satellite consortia

3.3.1 In November 1990 the European Commission published a Green Paper on satellite communications in the European Community. This proposed a number of options for increasing competition in the supply of satellite services, including liberalising the supply of space capacity. The Commission felt that the integration of commercial services and space capacity provision by PTTS was anti-competitive and recommended that there should be separation of these activities along the lines of the SAO established in the UK. In addition, the Commission acknowledged that the consortia treaties and operating agreements could also be regarded as anti-competitive, eg the 'economic harm' provisions, and recommended that Member States should use their position within EUTELSAT to bring about changes to the operating agreement and treaty so as to allow direct access to EUTELSAT capacity by non-Signatory users. In November 1991 the Council of Ministers endorsed the Commission's recommendations for the separation in all Member States of regulatory and operational functions, and for improved access to space capacity. The Council also invited Member States to work as quickly as possible towards the improvement of access to INTELSAT and EUTELSAT space capacity through participation of the Member States within the consortia.

3.3.2 The response from EUTELSAT has been generally disappointing. It has argued that greater freedom of access could be achieved in a more efficient way by using the flexibility in the existing arrangements rather than by

amending them. This may be the case, but EUTELSAT as a whole has made only slight progress in improving access. It is not clear that this has met the Commission's concerns regarding the present arrangements and in the light of the resolution adopted by the Council of Ministers there remains the possibility of an Article 90 Directive requiring EC Member States to work actively within EUTELSAT to bring about the necessary changes. On the positive side, EUTELSAT has now acknowledged the need for change on issues such as ease of access to capacity. However, EUTELSAT's internal working group, set up specifically to look into this, has so far failed to make any significant progress. This working group was given a renewed mandate by the recent Assembly and while swifter progress may be made during the next year, this is far from certain given the wide spectrum of opinion held by EUTELSAT Members.

3.3.3 More encouragingly, the individual Parties and Signatories of the UK, Germany, France and the Netherlands have committed themselves to process capacity requests from any operator licensed to provide services in a EUTELSAT member state. This is a welcome move in that all independent UK service providers will theoretically have access to four suppliers rather than one, and there will be the possibility of greater choice and competition in the market. This will mean that they could avoid having to seek space capacity through what they may consider to be their direct competitors. The framework arrangements for such applications have also been concluded.

3.3.4 As well as the tentative moves within EUTELSAT there have been substantive changes within the INTELSAT organisation which have brought direct access close to being a reality for non-Signatory users of space capacity. At its meeting in March 1993 the INTELSAT Board decided that in the case of any individual member country the following procedures could apply, if so requested:

- a Signatory could authorise non-Signatories to deal directly with INTELSAT;
- INTELSAT would refrain from holding that Signatory liable for non-payment of utilisation charges incurred by non-Signatories. Thus, the independent operator would be directly liable to INTELSAT; and
- the authorising Signatory would not be held liable by INTELSAT for damage resulting from the mis-operation of earth stations by authorised operators, provided that the relevant Party (Government) assumed responsibility, though not financial liability, for the proper operation of these earth stations;

3.3.5 INTELSAT has not yet, however, resolved the issue

of the treatment of the investment share liability (see paragraph 5.2.1) arising from the use of capacity acquired in this way. As these proposed new arrangements will operate on an optional rather than a mandatory basis it is possible that until this question is resolved Signatories may well be unwilling to authorise non-Signatories to deal direct with INTELSAT and create additional investment liabilities on their behalf.

3.3.6 The developments within INTELSAT, which were supported by BT, are welcome and we hope that EUTELSAT will follow this lead. However, we are not aware of any INTELSAT or EUTELSAT capacity yet being acquired under either set of new arrangements, and have consequently conducted this review on the basis of the current arrangements of the international consortia.

3.4 Conclusions

3.4.1 There are a number of general conclusions to be drawn from this brief overview of the arrangements governing the availability of space capacity for the UK SSOs:

- Government policy in stimulating the development of competition in the provision of satellite services has been successful to the extent that it has induced a number of firms to enter the sector and offer innovative tailored services in niche markets; the independent sector is still however in its infancy and to this extent there is a continuing responsibility for the regulatory authorities to ensure that BT does not misuse its dominant market position in the supply of satellite services or its role as a dominant provider of space capacity;
- access to the right space capacity, at the right time and on reasonable terms, is the lifeblood of the SSOs; without such capacity they cannot operate and will be forced to leave the market;
- even though the SAO is nominally independent from BT, BT is the SSOs' major competitor and there remains potential scope for conflict of interest. Even if the currently proposed changes within EUTELSAT and INTELSAT become a working reality BT will still be a dominant player in the market, and as long as the SAO has a role to play the potential for conflict of interest will remain;
- BT's role as Signatory to the international consortia gives it advantages over the SSOs; currently BT's voice rather than the SSOs' is heard at consortia meetings, BT plays a part in setting prices for capacity that both it and its competitors will have to pay on a non-discriminatory basis and is closely involved in the approval process for SSOs' earth stations;

- while the recent changes within INTELSAT are especially welcome we will have to await the outcome of current discussions to determine what role the UK Signatory (BT) will retain with respect to the independent operators' access to the consortium; and
- there is no certainty that EUTELSAT will make any substantive moves towards direct access for the foreseeable future. While the multiple access arrangements are welcome, they will still require the involvement of a Signatory, which may well be BT in the case of SSOs operating from the UK.

4 SSOs' OPERATIONAL EXPERIENCE OF THE SAO

4.1 In our discussions with them the independent satellite service providers, perhaps understandably, relayed a number of concerns at the way in which the SAO dealt with them and handled their requests for space capacity. Given the potential for conflicts inherent in the structure of the SAO these complaints were to be expected (though the SSOs also indicated that the individual SAO staff did their best in demanding circumstances to minimise difficulties).

4.2 The key points the independent satellite service providers made were:

- SAO procedures were excessively bureaucratic;
- there were doubts about the effectiveness of the 'Chinese walls' providing the SAO with independence from the remainder of BT. OFTEL does not doubt the good faith of BT staff, either those involved in SAO matters or their colleagues working on other matters. Such a concern is however inescapable given an organisation with such a potential for conflict of interest;
- the staff of the SAO were lacking in flexibility in their application of the consortia Operating Agreements and slow to respond; given that the availability of space capacity is crucial to the SSOs' businesses it is not surprising that any threat to it is viewed very seriously by the independent operators;
- it was impossible to assess the economic viability of applying for space capacity through the SAO without having first entered into protracted discussions with it beforehand;
- the SSOs were given insufficient information on, and access to, the international consortia. They claim that papers have been passed on late, if at all,

and there has been a lack of consultation. The views expressed at consortia meetings thus have not reflected the SSOs' position in the way they might;

- the SAO serves to prevent direct transactions between the SSOs and the international consortia and, through the 7% mark up, or Signatory Charge, holds prices for space capacity at levels higher than they would otherwise be;
- the SAO was occasionally unwilling or unable to deal with problems encountered with the international consortia, eg on billing, although on approaching the consortia direct, solutions were often readily available; there was widespread concern that the SAO provided no added value to justify the 7% Signatory Charge. BT acknowledges that the SAO encourages queries to be taken up directly with the consortia where they can be better dealt with by the consortia, particularly on direct booking of occasional use and availability of capacity; and
- the SAO was seen as a regulatory body, keen to diminish all possible liabilities to BT rather than to promote the development of satellite services or encourage new market entrants.

4.3 Understandable though they are, it is disappointing to note that many of the concerns voiced at the time of the previous review in 1988/89 are still current. This reflects the nature and structure of the SAO, and the inherent conflicts of interest they give rise to, rather than on the qualities of the individuals concerned. Some of the SSOs' concerns emanate from the structure of and the way the satellite consortia operate while BT, fairly, has pointed out that since the creation of the SAO it has responded to specific cases OFTEL has raised with it and in some cases has made changes to its procedures. It does, however, remain the case that a significant part of the Signatory machinery is located in other parts of BT and it is open to question how much input the SAO makes into the views expressed, for instance, at the consortia meetings.

4.4 In the light of the representations made by the independent operators and the potential scope for conflicts of interest, it is arguable that more needs to be done to ensure that the SAO conducts its activities in a fair and transparent way. Section 7 discusses some practical steps that might be taken to alleviate some of the difficulties identified. The central problem of the structure of the SAO and its status as part of BT is addressed in Section 6.

4.5 Finally, the SSOs unanimously expressed a preference for direct access to the consortia for the purposes of leasing capacity and acquiring earth station approval. BT has indicated that this would be its preference too, were the

structure of the consortia to allow it. As it is, the SAO encourages direct contact with the consortia for all types of service, and particularly with regard to the operational aspects of service.

5 BT'S PROPOSALS

5.1.1 As its contribution to the review process BT conducted its own evaluation of the operation of the SAO. It concluded that the existing arrangements have worked well and considers that the SAO has built up good working relationships with the SSOs and that fears that BT would not properly be able to separate its commercial from its Signatory interests have proved unfounded. Nevertheless, against the background of the continuing liberalisation of the satellite sector and the increasing use of space capacity by non-Signatories BT proposes the modification of some of the existing arrangements to put them on an appropriate commercial basis for the future and to ensure that all financial and other liabilities to which it is exposed because of its role as UK Signatory are covered by appropriate contractual arrangements.

5.1.2 Its proposals cover three areas:

- (a) investment share contributions,
- (b) indemnity insurance, and
- (c) an Administration Charge.

5.2 Investment share contributions

5.2.1 BT, as Signatory, is responsible for contributing towards the capital investment requirements of each of the satellite consortia. The investment share for each Signatory is calculated on the amount of space capacity used during the six month period ending March the previous year. Although traditionally each consortium has aimed to give a 14% return on capital contributions (though EUTELSAT now aims for a return of 17% and INTELSAT for 16%), full payment of the capital is not made for several years after it has been advanced.

5.2.2 Under the present arrangements, Mercury is responsible for reimbursing BT as Signatory for that part of the investment share arising from its own use of consortia space capacity, with BT meeting the balance. BT therefore contributes on behalf of that proportion of capacity used by the SSOs (and this is not included in the 7% Signatory Charge). BT wishes to extend this concept of contribution to all UK operators so that it only has responsibility for capital contributions arising from its own use. It proposes that each SSO either:

- (a) contributes towards the UK's investment share in proportion to its utilisation of consortia space capacity if its utilisation exceeds an agreed threshold; or, if it does not
- (b) compensates BT for the investment it has made on its behalf through a higher Signatory Charge; the percentage relevant to each consortium would be recalculated each year to compensate BT for the difference between the overall rate of return it would expect to get on its capital investments and the rate of return received from the consortium concerned. In calculating the percentage addition each year from the budgetary forecasts of the consortia, BT would conduct an audit check on the actual results for the preceding year and, if there were an excessive difference between the forecast and the actual figures, BT would submit a supplementary account for the deficit or refund the overpayment.

5.2.3 BT has provided worked examples of how these two options would work in respect of INTELSAT and EUTELSAT. The later calculations show that an independent operator would have needed to pay an additional 29% in respect of INTELSAT and 2% in respect of EUTELSAT in 1992.

5.2.4 When the SAO arrangements were first under consideration in 1988 BT did not seek to have investment share contributions included for a number of reasons:

- the licences then envisaged for the independent operators were restricted to point to multipoint services in the UK, constraining commercial opportunities;
- the type of operation envisaged by potential operators required Ku-band space capacity, then in very short supply;
- neither the INTELSAT or EUTELSAT 'footprints' were thought to be ideal for the operations likely to be offered by the independent operators; and
- the capital contributions required by EUTELSAT were then fairly low and it was not thought that the space capacity use of the independent operators would have any investment share implications for either the re-determination exercises undertaken in March 1989 or 1990, while the SAO arrangements were due to be reviewed at the end of 1990.

5.2.5 BT now argues that the extent of the use by the independent operators, unforeseen at the time the SAO was created, is placing an additional financial burden on it and that it is unfair to ask its shareholders to continue to bear this investment responsibility, which can be seen as a direct subsidy supporting its competitors. BT's net investments in

the consortia for each year up to March 1993 are shown in Annex E. Forecasts for 1993–1997 are shown in Annex H.

5.2.6 BT has said that non-Signatory use of capacity could increase significantly over the next five years and it claims that a clear trend is developing for EUTELSAT. Although use of INTELSAT has been variable and at a low level, this may change. BT estimates that it might have to make net capital investments of up to £16m to cover non-Signatory use up to 1997. This estimate is based on the assumption that:

(a) INTELSAT use will increase at 50% per annum from 1994 (assuming that the 1994 base is the same as 1992 actual use); and

(b) the trend for EUTELSAT use will continue.

The evidence (Annex F) is that SSO use of space segment does appear to be growing in EUTELSAT. However, the level of growth in INTELSAT is unpredictable which is to be expected given that SSO use is starting from a zero base.

5.2.7 These are, of course, BT's own figures. We have consulted several SSOs for their forecasts on the growth in their use of space capacity. They were remarkably more conservative. Their belief was that a 50% increase in total capacity use over a five year period would be the maximum they could anticipate and that where possible they would wish to switch to capacity on other, independent, satellites as they came on stream. Even taking into account possible new market entrants the figures for BT's investment in the international consortia reflecting the use of space capacity by the SSOs contained in Annex H *could* be significantly less.

5.2.8 Equally, however, if the overseas operators (ie those planning to uplink outside the UK) which have shown an interest in acquiring space capacity through BT because of the relatively low Signatory Charge imposed by the SAO were to lease capacity through the SAO (which could be a real possibility within EUTELSAT under the proposed arrangements outlined in paragraph 3.3.3 it *could* lead to a significant increase in the UK's investment share and thus BT's investment contribution. On the other hand, were another EUTELSAT Signatory to offer capacity at a price below that offered by the SAO, there could be a significant decrease.

5.2.9 The SSOs have expressed extreme disquiet at the prospect of contributing an investment share in addition to the capacity leasing costs and the 7% Signatory Charge. They have made the following points:

- the benefits from becoming investors are not clear. Indeed, although termed 'investment share' the requirement to provide capital to the international consortia is not an investment in the normal

commercial sense of the word. Although BT has offered to discuss what improved procedures could be put in place to allow large SSOs to have a greater say in the consortia, the SSOs would still be required to submit any requests for space capacity and earth station clearance through the SAO and pay the 7% Signatory Charge. Nor would they have any right to be represented at consortia meetings; the consortia Operating Agreements limit representation to a single Signatory for each member country;

- the costs involved could have a severe effect on the viability of their businesses and could in some cases result in their leaving the satellite service market;
- a decision to make an investment in the satellite consortia is a fundamentally different decision from that to lease satellite capacity and the requirement to make capital contributions in advance could well act as a barrier to market entry, having the effect of defeating the policy of increased liberalisation of satellite services that has been pursued since 1988;
- even though the SSOs have not been involved in past investment decisions, they would be expected to provide the capital to meet liabilities arising from such decisions. In the case of EUTELSAT, which is financed largely by debt, they would be burdened with a substantial debt liability (EUTELSAT currently has a debt/equity ratio of 15:1 and had outstanding external loans of some 780m ECU at the end of 1991). The decision to use debt to finance the second tranche of EUTELSAT satellites was made partly at least by BT in its role as Signatory and the operators regard it as unfair that BT should now be seeking to transfer some of this liability to them;
- BT enjoys significant political and strategic advantages that flow from its position as Signatory and which compensate for its investment share contribution (a proportion of which came from public funds before privatisation);
- if the SSOs were forced to make an investment share contribution they feel that it would remove any incentive on BT to seek progress within the consortia towards direct access (though BT has contributed positively, for instance, in the discussions within INTELSAT towards the granting of direct access outlined in Section 3);
- those SSOs which make only occasional use of satellite capacity have pointed out that it is not reasonable to expect them to provide an investment share contribution. The second of the two options proposed by BT would increasingly penalise SSOs the worse the return earned by the international

consortia became, even though they have no voice in operation of the satellites while BT has; and

- in any event, BT should receive a return on the investment share contribution it makes; in theory the greater the investment the greater the return, although in practice the consortia have found it difficult to meet the relevant target returns. This is arguably because the consortia have kept prices for the use of capacity for network services (largely paid for by the national PTTs who are also Signatories) at artificially low prices. The SSOs, of course, also enjoy the benefit of such pricing policies;

5.2.10 The proposed multiple access arrangements suggested for EUTELSAT and the direct access arrangements proposed for INTELSAT will force the consortia to address the issue of the investment share liabilities attaching to non-Signatory use of space capacity. One proposal put forward within EUTELSAT would see space capacity acquired by non-Signatories *not* forming part of a Signatory's investment share liability and being shared equally amongst all Signatories. This would acknowledge the principle that use of capacity can be divorced from its supply, and that it would be inequitable to force any user of space capacity, particularly occasional users, to bear part of the costs and risks involved in investing in the consortia.

5.2.11 We have given this complex issue very careful consideration. In theory, the operations of the international consortia should provide a suitable return for the investment made, which would naturally recompense BT for the contribution it makes as a result of the SSOs' use of the satellites. That the consortia have not been able to do this historically suggests that perhaps the price of satellite capacity has been kept artificially low, possibly to benefit high volume users, ie national PTTs, which are of course also the Signatories and investors. We also see some force in the SSOs argument that requiring them to pay such contributions allows BT to pass on to them the unfortunate consequences of decisions and agreements to which they have not been a party.

5.2.12 Under the present arrangements the SSOs cover a proportion of the costs to BT of fulfilling the Signatory function through the 7% Signatory Charge. They may thus acquire their space capacity at a cheaper rate than they could acquire it from other Signatories (though this is partially because other Signatories impose high mark-ups that are not calculated to either reflect the costs incurred or an appropriate rate of return on their investment). OFTEL also appreciates BT's desire to ensure that the liabilities passed on to its shareholders as part of its Signatory role are minimised.

5.2.13 There is a real concern that if implemented BT's proposal could have the effect of forcing existing players to leave the market. It could force the SSOs down the path of leasing capacity from BT's commercial arm rather than through the SAO. We also have doubts about the acceptability of BT passing the burden of investment in the international consortia onto other operators whilst direct access to consortia space capacity and to consortia meetings is continued to be denied to them.

5.2.14 The fact that third party use of consortia space capacity incurs an investment liability for BT arises from the link between utilisation and investment shares created by the intergovernment treaties establishing the consortia and the consortia operating agreements. These were drawn up at a time when the national PTTs were the monopoly supplier and it was natural for the PTTs to be the Signatories. As more countries adopt a liberalised regime, the operating agreements appear increasingly anachronistic and in need of change to reflect the new climate. BT is, in effect, seeking to pass on the unfavourable results of these agreements to third parties. It is also passing on to the SSOs the effect of the uncommercial approach to making a return on its investment adopted by the international consortia. BT has, however, been active in the international consortia in promoting steps to break the link between investment share and the operation of the satellites on the one hand, and capacity use and the provision of satellite services on the other. The original logic for this linkage has become less forceful in the light of successful private ventures such as the Astra satellites, and it now stands in the way of the consortia adopting a more commercial approach.

5.2.15 As outlined in paragraphs 5.2.6-8 above, there are doubts about the size of future third party use of consortia space capacity and thus the level of BT's potential investment share liability. Although use of consortia space capacity may well increase, there will be an increasing amount of space capacity provided by independent operators, eg PanAmSat and Orion. In addition, capacity is also becoming available on the Intersputnik satellites owned and operated by the former Soviet Union. Overall satellite capacity is expected to expand significantly over the coming years. In the longer term the price of capacity can thus be expected to drop as supply exceeds demand. Thus, an equally likely scenario is that unless the international consortia begin to adopt a more commercial approach operators will use these systems instead of consortia space capacity simply because it is cheaper and easier to obtain.

5.2.16 OFTEL is persuaded by the need of BT to recoup the full economic cost of creating and supplying space capacity through the international consortia. This, it seems to us, is best achieved by ensuring the international

satellite consortia move towards operating on a fully commercial basis, including charging all users of capacity at a rate that reflects the costs of its provision, and including the risk involved and an appropriate return on the resources employed. A commercially acceptable rate of return on investment in the consortia would make any increased investment that BT was required to make as a result of greater use of space capacity by SSOs, or even by overseas operators, more rather than less attractive.

5.2.17 It is therefore proposed that BT should not be allowed to seek such investment share contributions at this stage.

5.3 (b) Indemnity insurance

5.3.1 As UK Signatory to the satellite consortia, BT is responsible for all liabilities that may arise through utilisation and operation of space capacity made by any operator acquiring capacity through the SAO, eg claims arising from damage to the satellite or from interference affecting other services. BT argues that this leaves it facing unlimited financial exposure to the satellite consortia on behalf of the SSOs and such liabilities could well be greater than the assets of an individual SSO. The proposed new arrangements in respect of INTELSAT outlined in paragraph 3.3.4 would, if successfully implemented, serve to remove from BT such liabilities arising from SSOs' use of that consortium's capacity.

5.3.2 BT's view is that other operators should accept financial responsibility to BT and fully indemnify it for operations using space capacity obtained through the SAO. BT considered requiring insurance indemnities from the outset of the SAO arrangements but found that the market for covering satellite risks was in 1989 insufficiently developed. Its view is that the insurance market in this sector is now mature enough to offer adequate cover at a reasonable cost.

5.3.3 BT has therefore proposed that the SSOs be required to take out liability insurance cover to support their third party indemnity undertakings to BT in relation to the use of space capacity. BT has, we understand, taken out such a policy that provides an indemnity of up to £550m for any one occurrence for damages or legal costs arising from its own space capacity use. This policy does not, however, provide BT with any indemnity relating to its Signatory liabilities arising from the SSOs' use of space capacity acquired through the SAO.

5.3.4 BT would be content for the SSOs to make their own arrangements either as a group or on an individual basis; it does not wish to impose its own insurance cover on SSOs or act as a premium setter. It has, however, consulted the insurance market and co-operated with specialist brokers to

establish a facility to enable all operators to have insurance to support their indemnity to BT. Although BT's liability to the consortia is currently unlimited and the operators' liability to BT is similarly unlimited, it is not possible to obtain insurance for an unlimited amount and so BT is prepared to accept, at this stage, insurance subject to a ceiling of £100m, the maximum currently available in the market. Under this facility therefore not all of BT's potential risk would be covered.

5.3.5 The SSOs made a number of points on this proposal:

- the Enabling Agreements that the SSOs sign with the SAO, and which are legally enforceable through the courts, enable BT to indemnify itself from all liability. If the need arises, BT could seek to recover such liabilities in this way;
- the independent satellite operators, such as PanAmSat, do not require such insurance and neither is it a requirement of the extensively liberalised US satellite market. (The cases are not strictly analogous given the non-commercial basis of the international satellite consortia and their operations. The risks to PanAmSat will be covered by its own insurance with the cost of the premiums reflected in its leasing prices for space capacity);
- the SSOs were not aware of any instances where an operator had incurred liabilities of the kind that BT were proposing should be covered. While BT's technical advice is that intentional damage to a satellite is a possibility, and the consortia themselves assert that such a possibility depends partly on the design of the satellite, SSOs experienced in the construction and operation of satellite systems claim that it would be a practical impossibility to damage a satellite from an uplink, except through a deliberate malicious act (although they admit the possibility of liabilities being incurred because of interference);
- where interference occurs, identifying and making out a substantive case against a specified user is likely to prove extremely difficult;
- because of its size and status BT could expect to benefit from lower premiums than would be available to the SSOs, who would thus be at a competitive disadvantage. (BT has pointed out that, on the contrary, its high public profile may be more likely to attract claims while its Signatory status serves to increase its exposure, both factors arguably leading to higher premiums); and
- even if they were persuaded of the need for insurance to cover such risks, the SSOs feared that the costs would be prohibitive and would act as a deterrent to market entry.



5.3.6 The issue of indemnity insurance is finely balanced. OFTEL is keen to ensure that BT should not bear responsibility for charges and liabilities that should properly fall to others, and we recognise the strength of the argument that it needs to ensure that any risks it incurs on a contingent basis because of its Signatory status are adequately covered, especially as the degree of risk may increase significantly as, for instance, the improved access arrangements within EUTELSAT are exploited as BT may be expected to indemnify other Signatories for liabilities arising from overseas operations where the space capacity has been acquired through the SAO. There remain, however, questions as to what risks should be covered and the way in which they should be covered. BT has, for instance, suggested taking a blanket policy to cover all SSO operations, the cost of this cover being met either by the Signatory Charge or by separately identifiable payments by SSOs.

5.3.7 There is also the argument that it would be more appropriate for the international satellite consortia to follow the example of the independent satellite operators and obtain their own insurance cover for such liabilities, reflecting the premiums incurred in the price for acquiring space capacity charged to the customer. This would perhaps be the most cost-effective and sensible way to approach the problem, although it is unlikely to be an option available to BT in the short term.

5.3.8 BT has also suggested the alternative option of DTI, as the UK Party to the agreements establishing the consortia, accepting liability for financial responsibility for indemnities required by and given to the consortia in relation to space capacity acquisition, as it has the power to do under the provisions of the Operating Agreements. Government is generally reluctant to take on such contingent liabilities and DTI has indicated that it is not willing to consider underwriting commercial risks.

5.3.9 Overall, OFTEL is of the view that adequate insurance arrangements form part of the legitimate costs of entry into this particular market and that as such they should be met by the SSOs. The discussions we have had thus far on the subject with BT have ranged across a number of potential ways of meeting this requirement, and we are prepared to consider further with representatives of all interested parties how it can best be met.

5.3.10 It is therefore proposed that BT be allowed to require independent operators to have adequate indemnity insurance arrangements to meet liabilities that might otherwise fall on BT as Signatory.

5.4 (c) Proposed Administration Charge

5.4.1 In order to avoid the possibility of those SSOs which are large users of space capacity subsidising their

competitors which are smaller users through their contribution to the costs incurred by BT in exercising its Signatory functions through the 7% Signatory Charge, and to ensure that all users of SAO's services make a fair contribution towards its costs, BT has developed the concept of an SAO Administration Charge. Operators requiring information about the satellite consortia, consortia documentation etc, but which do not subsequently acquire space capacity through the SAO would pay this new Charge and thus contribute to meeting the SAO's costs. BT has, for instance, estimated that it would cost £152 to copy and send to a potential SSO all of the SAO and consortia documentation that it might need. The Charge would be offset against other charges for those operators which did subsequently lease capacity so that they would effectively face no costs above those currently required.

5.4.2 OFTEL has grave doubts as to the justification for the introduction of such a charge. While we acknowledge that the amount of resource the SAO devotes to a particular inquirer may not always be met by the income from the Signatory Charge attaching to a subsequent lease of capacity, it is not clear how any subsidy could arise in such circumstances. An Administration Charge would not necessarily redress any such imbalance. The SSOs themselves have not expressed the view that the current arrangements might give their competitors an unfair advantage. Offering free up-front advice and information to those new to the market, ie potential customers, is exactly the approach that a commercially-based organisation would wish to take. Our most serious doubts, however, concern how far such an Administration Charge would act to deter potential entrants to the market - something OFTEL is keen to avoid - and how the SAO would in practice determine whether an inquiry was related to a subsequent lease agreement. This last point seems to offer considerable scope for confusion and dispute.

5.4.3 In discussion with BT it has accepted that it would be wrong to deter potential operators from making legitimate enquiries of the SAO. However, the Signatory Charge is only payable on the consortia charges for acquisition of space capacity while BT indicates that somewhere in excess of 50% of SAO time is spent on potential users of capacity - who may never become operators - and those who only require earth station approval. Also of concern to the SAO is the currently unknown quantity of clerical effort and document copying which may flow from the requirement to give greater circulation to consortia documents (see paragraph 7.4.5).

5.4.4 We therefore propose that BT should be allowed to charge the reasonable costs of copying documentation supplied in response to a request for information that does not lead to the acquisition of space capacity. This

approach is in line with the approach we have taken elsewhere with BT, eg in allowing reasonable charging for the provision of copies of interconnection agreements.

6 THE FUTURE OF THE SAO: OPTIONS FOR CHANGE

6.1 Introduction

6.1.1 The inherent weakness of the current structure of the SAO, as part of BT, acting as the sole UK supplier of the commodity vital to the future of its competitors, was recognised at the time the SAO was established. The SAO was regarded at the outset as an interim solution until direct access to the international consortia for the SSOs was arranged. The experience of the SSOs in leasing capacity and in their other dealings with the SAO has underlined this point. While the SAO has been successful in safeguarding commercial information about BT's competitors, the arrangement does not retain the confidence of the operators, who would prefer direct access to the consortia. BT's proposal to require the SSOs to meet the investment share contribution that their capacity use creates has sharpened their desire to achieve direct access, or to see the SAO replaced by an alternative body until such access can be achieved. There is significant pressure for change from within the industry.

6.1.2 OFTEL has therefore considered a number of options relating to the long term future of the SAO and its role and functions:

- (a) supporting the moves towards a European SAO;
- (b) transferring the Signatory function from BT to another private sector body;
- (c) transferring the Signatory function to the public sector; and
- (d) enabling all operators to have direct access to the consortia.

6.1.3 These options have been considered on the basis of the arrangements within the international satellite consortia as they have been until now. Although changes are taking place within the consortia (see paragraphs 3.3.3–5), none is yet an operational reality.

6.1.4 These options would all require action by the DTI, as the Party to the treaties establishing the consortia. They range more widely than the question of the operation of the SAO, but their consideration is essential to the future of the SSOs and the promotion of competition in the satellite service market and we have thus felt compelled to consider them. The DTI has concurred with this approach.

6.1.5 The end of this Section returns to the question of the changes that can be introduced immediately to deal, still on an interim basis, with the defects in the present structure.

6.2 A European SAO (ESAO)

6.2.1 This proposal is favoured by at least one independent UK operator and by EUTELSAT's Commercial Department. Other UK operators do not regard this as a credible alternative because it would simply create another layer of bureaucracy. An ESAO would not be able to lease satellite capacity in its own right but would have to route all reservations through a Signatory because of the requirements of the Operating Agreement. The SAO would thus need to continue to exist much as it is now. This option represents only a very partial step towards direct access.

6.2.2 This particular option was considered at a meeting of the EUTELSAT Board of Signatories (BS) as part of its work in considering improved access to consortia space capacity in response to the EC Green Paper. It was rejected because Signatories would retain full responsibility for the space capacity reserved by the ESAO but would have no control over that use and would be exposed to the consequent increase in investment share and associated liabilities. The BS also felt that there would be 'perceived difficulties' in assigning priorities to space capacity requests originating from Signatories and from the ESAO.

6.2.3 In the light of these factors, there is no argument for pursuing this option any further.

6.3 Transfer of the Signatory function from BT to another private sector body

6.3.1 There are two potential ways forward under this option: either the complete transfer of the Signatory role to another private sector organisation or the transfer of the SAO duties only (allocation of space capacity and submission of earth station approval requests), leaving the formal Signatory role (and the investment share liability) with BT.

6.3.2 A complete transfer to an independent private sector body could be effected by Government appointing the new body as Signatory and could be equated with the commercial operation of COMSAT in the US. It is doubtful whether the SSOs would want to see such an approach adopted in the UK. In comparison to the SAO's current Signatory Charge of 7%, we understand that COMSAT levies a mark-up well in excess of this. Although a UK version of COMSAT would not be

expected to apply such a high mark-up, the costs to the SSOs may conceivably increase. Implementation of this option might also require primary legislation.

6.3.3 The creation of an independent SAO would be easier to achieve than the complete transfer of the Signatory role. The SAO functions could be transferred simply by means of an agency agreement between BT and the new body, allowing it to qualify for the allocation of capacity under the terms of the consortia Operating Agreements. Such an independent SAO would need to be financed by the Signatory Charge and for it to be viable the charge would need to be paid by all operators using consortia space capacity, ie including BT (the investment share contribution would, however, remain with BT under this option). There must, however, be doubts as to whether many organisations with the appropriate expertise would wish to take on these responsibilities with the margins that would be available or the SSOs could afford. The current position of Mercury with regard to the international consortia would also need to be addressed under this option, as would both BT's and Mercury's role in providing international voice services, which, to an extent at least, use satellite capacity provided by the international consortia. BT, as the UK Signatory would also retain the major voice in consortia deliberations and the potential for conflict of interest in this respect would remain.

6.3.4 Both of these possibilities have superficial attractions, in that they remove the potential conflict of interest inherent in the performance of its functions by the SAO while it remains a part of BT. But bring with them the essential disadvantage that they would entail replacing one dominant UK supplier with another and, in the longer term, may not necessarily improve the competitive position of the SSOs.

6.4 Transfer of the Signatory function to the public sector

6.4.1 One option that has been suggested to OFTEL is the transfer of the Signatory functions to a public sector body such as the British National Space Centre, the Radiocommunications Agency or even to OFTEL itself. A number of SSOs have indicated a preference for this solution, which they see as ensuring equality of treatment and a measure of protection from what they perceive as the predatory attentions of BT. No doubt they would also expect a public body to exercise a certain degree of restraint in respect of the financial returns it sought from such an activity.

6.4.2 This option was considered and rejected in 1989 on the grounds that the public sector could not provide the necessary expertise. The basis for this conclusion has not

changed. In addition, a full transfer of the Signatory functions, including the investment responsibilities, could pose difficulties in terms of public expenditure decisions and, at times of financial constraint, the Government might seek to limit its exposure regardless of the consortia's operational needs. Moreover, the establishment and sale of space capacity should be entirely a commercial function and it would not be appropriate for a Government body to take on this role.

6.4.3 It would of course be possible to separate and transfer the SAO role to the public sector in the way that has been suggested above for the private sector. Apart from the issue of the margins to be earned on such activities, this route would also suffer the same problems.

6.4.4 There are real disadvantages, and only very limited advantages, to be gained from either form of this option. Again, it seems essentially an interim solution that would be overtaken by events in due course. It is therefore not worth pursuing further.

6.5 Direct access

6.5.1 Direct access for the SSOs to the international consortia is the solution most favoured by the independent operators and, provided all issues of liability can be satisfactorily resolved, by BT. It offers the SSOs freedom of choice and action, the required ease of access to space capacity and should help to ensure impartial and equitable treatment. While there have been recent promising developments in this respect the detailed operational arrangements have yet to be put in place. It is arguable that universal direct access by non-Signatories can only be successfully achieved by amending the consortia agreements so as to eliminate the requirement for Signatories to submit capacity requests and to break the link between capacity utilisation and investment. This has yet to be done.

6.5.2 Direct access could of course obviate the need for an SAO. Operators could have the choice between becoming an investor in the consortia or simply utilising space capacity at a known price. In order to attract investors, the consortia would probably need to reassess its cost and tariff structure to remain competitive in a changing market environment. This could well mean that the SSOs were faced with higher prices to take account of the full cost of providing space capacity. However if the consortia were placed on a commercial footing the attractiveness of the satellite market may improve so that new players entering the market provide the competitive pressures to force prices down for all concerned.

6.5.3 Direct access is effectively already granted to Mercury (see paragraph 3.1.5) This special status derives

from its role as a competitor to BT in the provision of international voice telephony, as second UK national PTT, because of its willingness to assume an investment share liability and because of its links with Cable and Wireless. BT has recently reviewed the position with Mercury and Cable and Wireless and has indicated that it is content with the current arrangements. It is consulting with them on how the benefits of the latest INTELSAT decision can be passed on.

6.5.4 BT in its role as UK Signatory, has supported the DTI's efforts aimed at securing direct access for SSOs. As noted, there has been some success in these endeavours, especially within INTELSAT. However it is possible that direct access within EUTELSAT is still some way off. Indeed substantive moves by EUTELSAT may have to await action by the European Commission directly aimed at the satellite market or alternatively, legislation aimed at the liberalisation of the European basic voice telephony market.

6.6 Proposals for change

6.6.1 Whilst direct access to all the consortia should continue to be the ultimate goal, this will not become an operational reality for some time, and there is a strong case for immediate change to the arrangements for acquiring space capacity.

6.6.2 OFTEL has therefore formulated the following proposed changes that could be introduced more speedily, always keeping sight of the ultimate objective of obtaining direct access for the independent operators to all the international consortia.

6.6.3 The changes we now propose to implement to the current arrangements are:

- (a) **a modification to BT's main operating licence to bring its activities relating to the provision of satellite capacity within its ambit;** currently these activities are not subject to the regulatory regime that governs BT's other activities. The existence of published licence conditions and the knowledge that the SAO's operations are subject to them and to regulatory scrutiny, with formal enforcement powers available to OFTEL if necessary, should go far towards reinforcing the confidence of the independent operators in the future activities of the SAO; and
- (b) **the establishment by BT of appropriate arrangements for the preparation and publication of separate financial statements for all of the Signatory functions, including those relating to BT's acquisition of space capacity for its own business, on a basis to be agreed by OFTEL.** This accounting

transparency will extend and reinforce the existing 'Chinese walls' separating the SAO from the remainder of BT.

6.6.4 These new arrangements, which will require the SAO to deal openly and equitably with all SAO customers, including BT, will go some way towards resolving the SSOs' worries about conflicts of interest. All customers, including BT for all its future satellite reservations, will be charged on a common and published basis.

6.6.5 The proposed licence modification will cover the question of charging and will, in the first instance at least, allow the SAO to charge its customers only up to the **current Signatory Charge**. Changes in the level of the Signatory Charge would need to be agreed with OFTEL.

6.6.6 An advantage of these proposals is that it will provide the information in terms of the flows of costs and revenues to allow an assessment of the real costs of the SAO operation. This will, in turn, allow service providers and operators to estimate with more certainty the costs of entering and operating in the satellite sector. It will also allow the regulators to assess the true costs of the SAO and to determine, in the longer term, how they can be distributed, if necessary, in such a way that best promotes competition and removes market subsidies.

6.6.7 To safeguard the confidentiality of information received in the course of carrying out its SAO functions it is proposed:

- (a) **to include in the licence modification that it would be a breach of BT's licence for its staff involved in the SAO to reveal confidential information to those not directly employed in SAO activities**
- (b) **to explore with BT the scope for greater separation between the SAO and the remainder of the company, and especially its Visual and Broadcast Services business.**

These changes, together with the new accounting separation arrangements, will help to enhance the independence of the SAO. BT has expressed its willingness to pursue the second of these proposals and has already provided OFTEL with its thoughts on the best way forward.

6.6.8 These proposals represent transitional arrangements only, until direct access to all the consortia is achieved. While they will make the costs and revenues of the SAO more transparent the SAO will still form part of BT and the existing potential for conflicts of interest will remain.

6.6.9 In view of the intentionally interim nature of these proposals, it is also proposed that the DTI presses ahead within EUTELSAT towards the objective of direct

access and works to ensure the moves within INTELSAT to enable direct access become a practical reality.

6.6.10 These changes will not affect the position of Mercury.

7 OPERATION OF THE SAO: SHORT TERM CHANGES

7.1.1 As well as considering the longer term future of the SAO and its role in allocating space capacity in the UK and how that may be improved, we have considered a number of options for changes in the way in which the SAO operates that could be introduced either immediately or in the short term. Some of these possible changes have been suggested to us by the SSOs and others have naturally arisen during our consideration of the issues raised during the course of the review.

7.1.2 The objectives behind the proposed changes are to streamline the SAO procedures where this can be done, to put the SAO on a more commercial footing, ensure the independence of the Signatory operation from BT's commercial interests and enhance the SSO's confidence in the equitable operation of the SAO.

7.1.3 The freedom to make radical changes to the way the SAO operates is inhibited by the Operating Agreements of the international consortia. But this factor alone should not prevent creative thinking about the future operation of the SAO or the implementation of changes seen to be in the overall interests of the industry.

7.1.4 Where appropriate, the proposals included in this Section would be reflected in the modification it is proposed to make to BT's licence formalising the regulatory position of the SAO (see paragraph 6.6.3).

7.1.5 The proposed changes to the detail of the way in which the SAO operates cover four distinct areas:

- (a) earth station approval and certification
- (b) the SAO's contractual arrangements
- (c) the flow and the nature of the information available to the SSOs; and
- (d) the application of the principles of space capacity allocation.

7.2 (a) Earth Station approval and certification

7.2.1 Under the existing arrangements the SAO submits applications for earth station approval to the satellite

consortia. As part of this process, BT has in the past sent witnesses to verification tests (made mandatory by the international consortia with the exception of some INTELSAT type approvals) to ensure compliance with the operating parameters specified by the international consortia. In addition the SAO has required a separate agreement for each earth station, covering third party liabilities.

7.2.2 The SSOs expressed extreme disquiet at a number of aspects of these arrangements, some which clearly result from decisions made by the consortia rather than by BT. The SSOs point out that the procedures pose a considerable administrative burden on both parties. There have also been concerns that the attendance of BT staff at the verification tests represents a potential breach of confidentiality while doubt has been expressed as to whether the same verification standards are being rigorously applied to BT's own earth stations. (BT has explained that it is the international consortia which decide whether testing is required and the same rules are applied to both BT and the SSOs.)

7.2.3 In the Director General's statement of November 1989 he indicated that as the competence of the SSOs was established BT would devolve responsibility for supervision of these tests to the SSOs. It is disappointing that there has been relatively little progress towards this objective. Given the growing experience of the firms involved there has been no overriding reason why there should be any such delay in liberalising this particular part of the SAO's activities. BT has argued that the Operating Agreements of the international consortia stipulate that only Signatories can submit earth station applications and that supervision of verification testing helps to protect it from possible liabilities.

7.2.4 At the same time, progress is being made in ETSI (the European Telecommunications Standards Institute) to produce technical standards for a range of earth station equipment. The ETSI standards will form the basis of proposed CTRs (Common Technical Regulations) that will specify the technical conformance criteria for satellite earth station equipment under a proposed Directive from the European Commission. It is not yet clear who in the UK will become the Notified Body for this Directive and, as such, will be responsible for issuing type approval certificates for earth stations, although the actual testing of equipment could be conducted by accredited laboratories or manufacturers that have gained Full Quality Assurance assessment from a Notified Body. Such a system of standards is still some way from being a practical reality and would not automatically authorise approved earth stations for connection to the consortia satellites. It would, however, offer the possibility for some common ground to be covered by the two approval systems and for some

streamlining of the process before an earth station is approved by the consortia for connection.

7.2.5 While there is no evidence that it has occurred, the arrangements for supervising testing have offered wide scope for anti-competitive behaviour and, in a liberalised licensing regime, represent a significant anomaly.

7.2.6 Following changes that have recently taken place in EUTELSAT procedures and documentation relating to earth station testing and, more importantly to the liabilities which attach to the operation of earth stations, BT has now decided to cease sending a BT engineer to witness earth station tests in order that the SAO can certify the accuracy of the results. Instead, operators will themselves be asked to certify the results they obtain from testing and the SAO will accept this certification and use it as the basis on which it provides the necessary certification to EUTELSAT. No extra information will be required over and above that which EUTELSAT itself seeks. Any operator that feels ill-equipped to carry out such tests will be free to approach any satellite operator or terminal manufacturer for assistance, and will be under no obligation to go to BT.

7.2.7 A corollary of this new liberalised regime has been the elimination of the existing contractual arrangements in so far as they affect EUTELSAT earth station approvals.

7.2.8 The issue of liability arising from the operation of earth stations is similarly being addressed in INTELSAT (see paragraph 3.3.4). It is to be hoped that similar liberal arrangements can be achieved there also. It is, however, possible that this may not be the case within an acceptable timeframe. In such circumstances, OFTEL would expect the SAO to agree to accept certification of results from third parties rather than continue to send its own engineers as witnesses. It would be an unfortunate anomaly if that were not the case.

7.2.9 It is proposed that the SAO should process INTELSAT earth station approvals following mandatory testing supervised by operators themselves or by third parties.

7.3 (b) The SAO's contractual arrangements

7.3.1 The SSOs expressed concern at a number of aspects of the contractual arrangements imposed by the SAO. These are addressed in the following paragraphs.

7.3.2 Irrevocable Bank Guarantees: The SAO requires the provision of irrevocable bank guarantees (or a suitable level of deposit), in addition to the indemnities contained in the Enabling Agreement, before it will process

individual applications for space capacity. Such guarantees are designed to cover the financial exposure arising from BT's contracts with the consortia in respect of an SSO's requirements which it would be required to pay the international consortia regardless of whether it had itself been paid by the SSO, eg because of a dispute between the two or because the SSO was no longer able to meet its debts.

7.3.3 The SSOs object both to the principle of the guarantees, which BT does not require in respect of contracts for other services it provides, such as private circuits, and to the practice which includes no restrictions on the number of SAO personnel that can call on the bank guarantees.

7.3.4 BT acknowledges that there is room for improvement in the arrangements for such bank guarantees and is willing to accede to reasonable requests, eg from the banks. BT also acknowledges that the SAO has never called upon a bank guarantee. It is also the case that the introduction of the proposed changes to the way in which INTELSAT operates (see paragraph 3.3.4), if successfully implemented, would mean that BT would no longer need such forms of security for INTELSAT capacity bookings as the financial risk would be borne directly by the consortium itself.

7.3.5 BT has a clear right to protect itself against bad debts (and some of the sums guaranteed can run into millions of US dollars or ECUs). The question is whether the practice of demanding bank guarantees introduces an anti-competitive distortion into the market. BT's case that it is prevented by the current arrangements from building in a margin for bad risks into the Signatory Charge, as it does in the tariffs for some services, that it has to make payments in advance to the consortia and some of the SSOs have relatively few assets and it therefore needs to protect the interests of its shareholders, carries some weight.

7.3.6 However, the SAO is not a normal commercial enterprise and neither it nor its customers is in a position to make normal commercial judgements about the price set and paid or balance the risks against potential advantages. In a normal competitive market BT would be unlikely to want to deal with a potential bad debt problem by imposing bank guarantees (although there are occasions when BT commercial products do seek bank guarantees as securities). It is more likely that there would be a range of prices which would vary by how much risk the SAO carried, so that the price of capacity would be lower for a low risk customer, or one that offered a bank guarantee, than for a high risk customer. The customer then chooses which price and risk combination it wants to buy; if it can indemnify the risk cheaper than BT it would buy cheaper capacity and ensure that BT will be paid. If BT can deal with the risk more cheaply than the customer, then the customer will buy more expensive capacity.

7.3.7 Clearly such variable pricing is currently inappropriate for the market for space capacity controlled by the international consortia. It is OFTEL's view that BT's policy of requiring bank guarantees is only anti-competitive in so far as the banks are not good at assessing the risk of default (so that low risk SSOs have to pay a high premium for the guarantee) or there are other ways for BT to reduce its risk that are cheaper or less of a barrier to market entry. This suggests that BT should be more flexible, but that forcing it to abandon the policy of seeking guarantees may not be appropriate.

7.3.8 On the basis that BT is willing to make detailed changes to tighten procedures to meet legitimate concerns and to recognise the differing preferences of individual SSOs and their banks, BT should be allowed to continue to seek bank guarantees or other forms of security.

7.3.9 *Range of contractual documents:* Both SSOs and potential SSOs expressed confusion at the number of separate agreements they are required to enter into in order to make space capacity reservations. An SSO might be asked to sign an Enabling Agreement, and specific Subsidiary Agreements for each space capacity booking and each earth station registration. Proposals from the SAO for an additional contract, an Administrative Agreement, were put on hold pending the outcome of this review. This range of agreements imposes a heavy administrative burden, and thus a cost, on even the most occasional user of the smallest amount of satellite capacity.

7.3.10 The SSOs regard the requirement to enter into these agreements as a barrier to market entry, and the fact that the whole range of agreements is not required for BT's own space capacity reservations means that there is inevitably an element of competitive distortion. There is no suggestion that the agreements were designed to deter space capacity reservations but they do not serve to make such reservations as easy as they might be and there would appear to be scope for streamlining them, eg through omnibus agreements for large and regular users of space capacity and simplified agreements for occasional users. Such an approach would form part of the greater commercial orientation OFTEL would expect the SAO to be taking in the future.

7.3.11 BT accepts that it may in the future be possible to remove the need for some subsidiary agreements provided an appropriate framework agreement is in place, although this would not entirely remove the need for further documentation required by the consortia or for clear records to exist concerning, for instance, orders placed. It has been considering ways of avoiding the need for subsidiary agreements for some time but has been awaiting the outcome of this review before fully addressing the issue.

7.3.12 It is therefore proposed that the SAO considers the scope for streamlining its range of contractual agreements within a reasonable timescale. OFTEL would expect draft contracts to be the subject of discussion with the SSOs and to be publishable.

7.3.13 *Changes to contractual documents:* During the review OFTEL was shown documentary evidence of the SAO seeking to impose changes to the terms of contractual documents against the wishes of the SSO concerned and at short notice. Given the SAO's dominant market position, the importance of satellite capacity to its business and the very short timescales involved the SSO had no option but to comply.

7.3.14 While the SAO would clearly not wish to amend contracts without due cause, this seems to be unacceptable behaviour on the part of a dominant supplier. While OFTEL does not have either the resources or expertise to become involved in day to day contractual matters between the SAO and the independent operators we are keen to ensure that the agreements the SSOs enter into are fair for all parties. **In future we would expect significant changes to the contractual documents issued by the SAO to be made only after agreement has been reached by both sides.**

7.3.15 *The SAO's responsibilities:* It became apparent during the review that there was some confusion as to the precise nature of the SAO's responsibilities and, in particular, where its duties finished and those of the consortia began. Such confusion can cause acute difficulties for the independent operators. For instance, a number of SSOs were unsure whether they should approach the SAO or the international consortia to deal with invoicing problems, while we also learnt of a case in which there was dispute over whether the independent operator has been adequately forewarned that it would not be able to renew the lease relating to certain satellite capacity.

7.3.16 BT fully agrees that it is important to have clearly stated responsibilities for the SAO and that the SSOs should be aware of these, pointing out that the OFTEL statement of November 1989 was itself unclear on some issues and has caused some difficulty for the SAO.

7.3.17 It is therefore proposed that the SAO draw up a concise and comprehensive outline of its duties and responsibilities, including where appropriate its contractual obligations, for circulation to both the SSOs and potential market entrants.

7.4 (c) The flow of information to the SSOs

7.4.1 Without exception the SSOs voiced their worries at the lack of information flowing back to them from the

international consortia via the SAO. The consensus view was that they did not receive the information they needed to keep them in touch with developments which might have a significant bearing on their businesses, that the information provided by the consortia was 'filtered' by the SAO, or that information was received so late that there was insufficient time in which to act on it or to make an appropriate input into the representations made at consortia fora on behalf of the UK by the Signatory.

7.4.2 BT acknowledges that it does not provide information which it regards as inappropriate for the SSOs, eg concerning investment decisions or consortium structure. Nevertheless the SAO does circulate a considerable amount of information to operators including proposed changes to terms and conditions, tariffs and proposed new services. INTELSAT documentation on transponder assignment and availability is also circulated; there is no corresponding EUTELSAT Board document. BT is also willing to discuss the best way to meet the SSO's needs, within the commercial confidentiality constraints that naturally apply to some consortia papers.

7.4.3 Were it not for a provision in the agreement reached in 1989 establishing the SAO which states that it would represent all SSO interests at consortia meetings, the SSOs themselves would be entitled to attend the Operations Representatives meetings and the Annual Traffic Planning Meetings (meetings at which the SSOs would have an opportunity to learn of the consortia's operational plans and make their own views known). With the growing experience of the SSOs this restriction on their presence at such meetings would seem no longer appropriate.

7.4.4 The SAO faces difficulties of its own in dealing with information provided by the consortia, which often arrives only very shortly before the meeting at which it is to be discussed. However, in the interests of equality of treatment OFTEL would expect to see the SSOs given exactly the same degree of access to information flowing from the consortia as BT's commercial operation has and for the SSOs to be able to decide for themselves what documentation they wish to see.

7.4.5 It is therefore proposed to:

- (a) pursue BT's offer of further discussions, with the aim of achieving the widest possible distribution of information to the SSOs;
- (b) consider with the SAO the arrangements for the SSOs' attendance at certain consortia meetings, particularly the Traffic Planning meetings; and
- (c) consider with the SAO arrangements to ensure that the views of the SSOs be taken into account by the UK Signatory at consortia meetings.

7.4.6 It is also proposed that DTI considers strengthening its own arrangements to ensure that the views of the SSOs are more directly taken into account in formulating the UK position at consortia meetings.

7.4.7 The doubts expressed by the SSOs as to the possibility of commercial information provided to the SAO finding its way to BT's commercial operations have already been touched upon (see paragraph 4.2). While such concerns are difficult to assess with any accuracy, and there have been no formal complaints alleging a breach of confidentiality, it is right that they are dealt with.

Consequently, it is proposed that the SAO be required to agree with OFTEL, publish and adhere to a code of confidentiality with regard to customer information.

7.4.8 Two further issues relating to information available from and about the SAO have given rise to concern:

- (a) **Publication of tariffs for space capacity:** The SSOs expressed concern at the scarcity of information on the tariffs applying to the various types of space capacity on offer for lease from the international consortia. Transparency is a clear pre-requisite to non-discrimination and is required for BT's core businesses. Lack of information on tariffs, by preventing a potential operator from assessing the likely viability of his project, also acts as a barrier to market entry and may induce operators to purchase a 'bundled' service from BT's commercial arm. Transparency on pricing is an essential ingredient of an open and free market. The SAO makes tariff information available to the SSOs, ie those with whom it already has signed agreements, and there is no overriding reason why this facility should not be extended to others. We understand that INTELSAT tariffs are already available through the FCC and while that there may be problems with individual EUTELSAT signatories who charge high levels of mark-up and who thus have an interest in concealing the cost of capacity to themselves the anti-competitive behaviour of others should not be allowed to inhibit progress towards a liberalised market in the UK. If there are formal obstacles to the open publication of tariffs BT and, if necessary, DTI, should work for their rapid elimination. If there are none, publication can commence immediately. Such publication would include volume-based or other discounts that may be on offer from the international satellite consortia. **It is therefore proposed that the SAO should agree to make tariff information available on demand to both operators and potential operators; and**
- (b) **The SAO's finances:** Several independent operators expressed their confusion as to the costs to be met by the 7% Signatory Charge they pay to the SAO on space

capacity reservations and noted that in the absence of any competitive pressures there is little apparent incentive within the SAO to minimise costs. This charge is calculated with reference to the costs incurred by BT in managing the overall relationship with the consortia expressed as a percentage of the total space capacity rental charges paid to the consortia. The operators' concerns are compounded by the lack of an identifiably separate set of financial accounts covering the SAO, showing its sources of revenue and expenditure. This seems to me to be an essential ingredient in ensuring transparency and in verifying equality of treatment between differing operators. This proposal echoes and reinforces part of the proposal at paragraph 6.6.3. It is proposed that the SAO commences the preparation of such financial statements, beginning with the forthcoming financial year, on a basis to be agreed with OFTEL; the information that is produced should be freely available to the independent operators.

7.5 (d) The principles of space capacity allocation

7.5.1 In discussions with the SSOs it became clear that BT itself, as distinct from the SAO, was *re-leasing space capacity*, on EUTELSAT particularly, that it had previously reserved but no longer required for its own operational purposes. The scale of this secondary market for space capacity is unclear. When asked, BT responded that it had difficulty in determining what proportion of the capacity leased to it is re-leased to customers for the provision of telecommunication services to third parties. However, it very roughly estimated that some 8% of the capacity leased by its Visual and Broadcast Services unit is used for the provision of such services. This raises the question of whether there should be any prohibition on BT undertaking such sub-leasing activity and, if not, whether the freedom to sub-lease should be formally extended to others who lease satellite capacity, ie the SSOs and Mercury. The terms and conditions imposed by the international consortia for obtaining space capacity do not always allow sub-leasing or brokering. BT has however persuaded the consortia to agree to allow such sub-leasing on certain types of capacity reserved through the SAO; there is no reason why it could not seek to extend this freedom to all space capacity acquired through the SAO.

7.5.2 Given that the original lessor could provide the requisite indemnities to the Signatory covering the capacity leased, and in the absence of any impediment in the consortia Operating Agreements, there is no reason why further sub-leasing should be prevented. Indeed, the creation of a secondary market in satellite capacity, with the competitive forces that it would bring, could be a

positive impetus towards the development of further satellite services. **It is thus proposed to make clear to all those who are active in the satellite market that there are no regulatory inhibitions to the sub-leasing of reserved space capacity to third parties.**

7.5.3 There are existing procedures both within the consortia and within the SAO itself for *challenging specific reservations of space capacity*. These have not, however, completely eradicated the concern amongst the SSOs which have continuing suspicions following some earlier capacity reservations by BT. While they may be over-dramatizing events the SSOs' concern can be appreciated. The current internal challenge arrangements introduced by the SAO in February 1991 after consultation with the industry did not originally extend to reservations for capacity on the second generation of EUTELSAT satellites (because EUTELSAT did not then itself operate such a challenge procedure). Such issues represent a source of concern to the SSOs. They remain entirely dependent on the SAO for the capacity that is vital to the future of their businesses, they are in competition with a much larger and more financially well-based operator in BT and BT itself, they suspect, exerts some degree of control over the SAO.

7.5.4 **It is therefore proposed that the SAO review its internal challenge procedures in order to ensure that they provide complete independence in the allocation of capacity and that they would prevent further such disputes as arose over the EUTELSAT II booking. The procedures would then be published, in a manner to be agreed with OFTEL. As part of any revised challenge procedure, we would expect to see a reference to an independent arbitrator as the final step in any unresolved dispute.**

LIST OF ANNEXES

- A Existing arrangements covering the operation of the SAO
- B Relationship between consortia, BT, SSOs and DTI
- C INTELSAT and EUTELSAT organisational structures
- D List of those consulted as part of review
- E UK investment share contributions 1989-93
- F SSO consortia utilisation charges 1989-94
- G Forecast of BT's net investment in INTELSAT/ EUTELSAT 1993-97
- H Forecast of BT's net investment in INTELSAT/ EUTELSAT in respect of SSO utilisation 1993-97

Annex A

EXISTING ARRANGEMENTS COVERING THE OPERATION OF THE SAO

(from OFTEL's Statement of 28 November 1989)

Annex A

BT'S ARRANGEMENTS FOR ACCESS BY SPECIALISED SATELLITE SERVICES OPERATORS TO INTELSAT AND EUTELSAT SPACE SEGMENT

1 Introduction

This document describes the arrangements to be established between BT and Specialised Satellite Services Operators (SSSOs) for the use of INTELSAT and EUTELSAT space segment. These arrangements will enable SSSOs to have ready access to the INTELSAT and EUTELSAT systems, while ensuring that BT can properly discharge its obligations as UK Signatory. The central feature of the arrangements is the creation within BT of a Signatory Affairs Office (SAO) to perform the signatory role on behalf of UK interests generally. The SAO is located within BT International (BTI), but will be independent from BTI's commercial operations. Appropriate procedures and safeguards have been put in place to ensure that the SAO acts impartially and with appropriate confidentiality towards all UK operators.

2 Space segment acquisition

SSSOs may apply directly to INTELSAT and EUTELSAT for the reservation of occasional use space segment capacity, sending a copy of the request to the SAO. All requests for leased space segment capacity, including requests from BT, and for free use of space segment for tests and demonstrations will be submitted to INTELSAT or EUTELSAT by the SAO. The SAO will deal with requests for space segment in strict order of receipt of written requests (assuming that the requisite contractual arrangements are completed).

3 Earth station approval, verification and certification

Applications for SSSO earth stations to access INTELSAT and/or EUTELSAT space segment will be submitted by the SAO. BT reserves the right to supervise certain of the mandatory verification tests on SSSO earth stations to ensure compliance with the operating parameters specified

by the satellite organisations. SSSOs will submit formal mandatory earth station test reports to the SAO for forwarding to the satellite organisations, with certification from BT where appropriate.

4 Earth station operations

As a part of the registration process for SSSO earth stations, the SAO will nominate the SSSO as owner and operator of the earth station. Upon approval of the earth station by INTELSAT or EUTELSAT, the SSSO will be responsible for day-to-day operational contact with the satellite organisation, for matters such as earth station equipment line-up tests, changes in operational parameters and submission and approval of transmission plans.

5 Contractual and financial arrangements

The financial and other obligations between the SSSOs and BT will be covered by a contract. The space segment utilisation charges and any other payments or deposits arising in respect of the ordering or utilisation of space segment by the SSSOs will be processed by the SAO with the assistance of BTI's Networks Finance Division (NFD). The SAO will receive the detailed SSSO space segment utilisation invoices from INTELSAT and EUTELSAT, and will notify the total sum payable to NFD, who will prepare a bill including the signatory charge and any taxes payable. The signatory charge will consist of a 7% addition to the space segment utilisation charges payable by the SSSO, and will contribute to the costs incurred by BT in discharging the signatory function. The bill will then be returned to the SAO for association with the detailed invoice from the satellite organisation and despatch to the SSSO. Payment will be made directly by the SSSO to NFD, who will make the appropriate settlement with the satellite organisation. BT will be responsible for INTELSAT and EUTELSAT investment share adjustments resulting from the SSSO space segment utilisation.

6 Representational arrangements

BT, as UK Signatory, will represent all SSSO interests at INTELSAT and EUTELSAT meetings (including Operations Representative and Global/Regional Traffic

meetings). The SAO will organise periodic briefing/debriefing meetings with the SSSOs as the need arises.

7 Confidentiality

BT will treat all SSSO commercial information in complete confidence. Information relating to any aspects of the SSSOs' dealings with BT in its signatory role will only be released outside the SAO, on a 'need to know' basis, if it is strictly necessary to do so in order to ensure the proper discharge of the signatory function. The names of the individual employees of BT who may from time to time need to receive such information will be kept on a register (see Appendix).

8 Documentation

BT will provide SSSOs who require access to the INTELSAT or EUTELSAT systems with a set of guidelines containing procedural, service, operational and technical information about the systems. Revisions and additions to these guidelines will be provided by the SAO periodically.

9 Review

The arrangements described in this document will be reviewed at the end of 1990 to ensure that they are operating to the satisfaction of all parties.

BTI/SAO
July 1989

Appendix to Annex A

The formal BT contact with SSSOs is provided by the BT Signatory Affairs Office (SAO), headed by Peter Moss, Signatory Affairs Manager. The SAO functions as a self-contained unit within the International Affairs Directorate of BT International, but may call upon specialist advice and assistance as necessary from a register of staff who are kept fully aware of their confidentiality obligations, and who will be involved on a strict 'need to know' basis. The register currently includes:

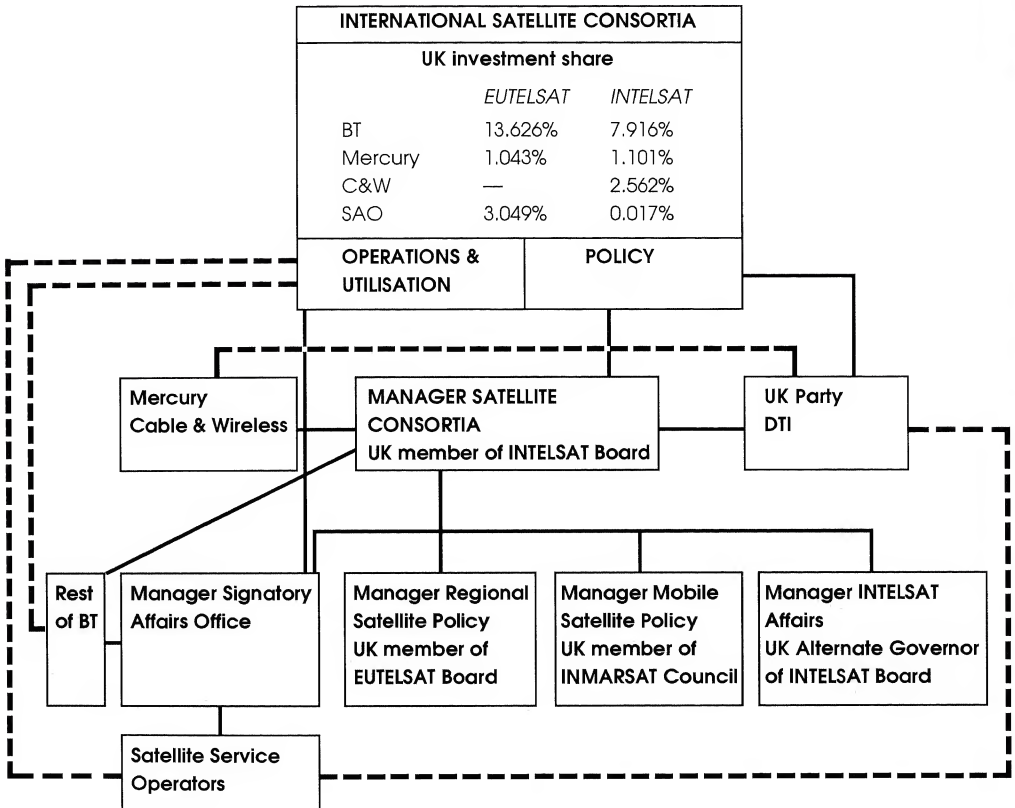
Alan Jefferis	Director, Satellites and Lines, BTI (UK Governor to INTELSAT)
John Price	INTELSAT, EUTELSAT and INMARSAT Policy Manager, BTI (UK Board Member to EUTELSAT)

Specialist assistance will additionally be required from the Main Earth Stations Division, BTI, for supervision of the mandatory testing of SSSO earth stations, as required by the satellite organisations. This will be provided by:

Eric Johnston	Head, Earth Station Development Group
<i>assisted by:</i>	Peter Evans and David Bryant

Annex B

UK RELATIONSHIPS WITH THE INTERNATIONAL SATELLITE CONSORTIA (simplified chart)



Key

Formal relationship —————

Day to day and exceptional contacts - - - - -

BT boundary

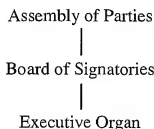
Annex C

INTELSAT AND EUTELSAT ORGANISATIONAL STRUCTURES

ORGANISATIONAL STRUCTURE OF INTELSAT



ORGANISATIONAL STRUCTURE OF EUTELSAT



INTELSAT and EUTELSAT are structured on similar principles:

- the **Assembly of Parties** consists of representatives of all the Governments that have signed the INTELSAT and EUTELSAT Agreements. Matters relating to the general policy and long term objectives of the organisation fall within the competence of the Assembly of Parties, with each member state having one vote;
- the telecommunications entities designated by the member states, or in some cases the member states

themselves, sign a complementary Operating Agreement and are known as Signatories. In INTELSAT approximately 25 Signatories may attend meetings of the Board of Governors representation being determined largely by the level of investment share. In EUTELSAT all Signatories may attend the Board of Signatories. The Boards consider technical, fiscal, and operational aspects of the satellite systems and are responsible for decisions relating to the design, development, procurement, establishment, operation and renewal of the satellites and related ground facilities. Voting on substantive matters is determined by Signatories' investment share;

- INTELSAT holds a Meeting of Signatories once a year. All Signatories are entitled to attend this meeting each having one vote. The minimum investment share necessary for representation on the Board of Governors is determined at this meeting. Signatories with individually small investment shares may group together to secure a single seat on the Board of Governors. Additionally, groups of five or more Signatories within an ITU region, regardless of investment share, may also be represented by one Governor provided there are no more than two of these groups from any one ITU region or more than five Governors for all the regions; and
- the INTELSAT Management, headed by the Director General/Chief Executive Officer, is responsible for the day to day management of the system together with the implementation of decisions taken by the Assembly of Parties, Board of Governors and Meeting of Signatories. The Director General/Chief Executive Officer is appointed by and responsible to the Board of Governors.
- Similarly the EUTELSAT Executive Organ, headed by the Director General, is responsible for the day to day management of the system together with the implementation of decisions taken by the Assembly of Parties and Board of Signatories. The Director General is appointed by and responsible to the Board of Signatories.

Annex D

LIST OF THOSE CONSULTED AS PART OF THE REVIEW

Alpha Lyracom Ltd
 BBC Transmission
 British Aerospace Communications Ltd/Kingston
 Communications plc
 British National Space Centre
 British Telecommunications plc

Department of Trade and Industry, Telecommunications
 and Posts Division
 EUTELSAT
 IDB Communications
 Matra Marconi Space UK Ltd
 MAXAT
 Mercury Communications Ltd
 Radiocommunications Agency
 Reuters Ltd/Uplink Ltd
 Satellite Information Services (SISLink)
 Trak-Sat Communications Ltd

UK INVESTMENT SHARE CONTRIBUTIONS 1989-93

UK investment in INTELSAT – Analysis of investment March 1989 to March 1993

	March 1989	March 1990	March 1991	March 1992	March 1993
<i>Breakdown of investment share as a proportion of Worldwide Utilisation</i>					
BT	8.915%	7.447%	7.499%	7.891%	7.916%
SSSO	—	0.053%	0.146%	0.252%	0.017%
C&W	3.173%	3.125%	2.935%	2.765%	2.520%
Mercury	1.571%	1.588%	1.125%	1.122%	1.101%
Total UK (including GibTel)	13.717%	12.292%	11.747%	12.064%	11.595%

Breakdown of investment share as a proportion of UK Utilisation

BT	65.0%	60.6%	63.8%	65.4%	68.3%
SSSO	—	0.4%	1.2%	2.1%	0.1%
C&W	23.1%	25.4%	25.0%	22.9%	21.7%
Mercury	11.5%	12.9%	9.6%	9.3%	9.5%
Net UK Investment Share in US\$m	214.4	194.7	199.9	230.0	191.1

UK investment in EUTELSAT – Analysis of investment March 1989 to March 1993

	March 1989	March 1990	March 1991	March 1992	March 1993
<i>Breakdown of investment share as a proportion of Worldwide Utilisation</i>					
BT	16.792%	14.160%	15.639%	12.801%	13.626%
SSSO	0.185%	1.533%	1.825%	2.189%	3.049%
Mercury	0.744%	1.206%	1.043%	0.915%	1.043%
Total UK	17.721%	16.899%	18.507%	15.905%	17.718%

Breakdown of investment share as a proportion of UK Utilisation

BT	94.8%	83.8%	84.5%	80.5%	76.9%
SSSO	1.0%	9.1%	9.9%	13.8%	17.2%
Mercury	4.2%	7.1%	5.6%	5.8%	5.9%
Net UK Investment Share in ECUm	8.5	10.8	14.2	9.9	11.0

Annex F

SSO CONSORTIA UTILISATION CHARGES 1989-94

	<i>INTELSAT \$m</i>	<i>EUTELSAT ECUm</i>
1989	0.07	1.81
1990	0.53	2.32
1991	1.04	3.12
1992	0.91	4.34
1993	0.38*	7.40*
1994	#	10.68*

Notes:

Charges are taken from quarterly invoices.

Figures exclude SAO Signatory charge of 7% and taxes.

*Forecasts for 1993 and 1994 are based on known requirements. No allowance for growth in the number of operators or utilisation has been included.

#No forecast available

Source: BT

Annex G

FORECAST OF BT'S NET INVESTMENT IN INTELSAT/EUTELSAT 1993-97

	<i>INTELSAT \$m</i>	<i>EUTELSAT ECUkm</i>
1993	130.5	8.4
1994	121.4	13.5
1995	102.1	17.9
1996	98.4	17.8
1997	98.9	17.8

Source: BT

Annex H

FORECAST OF BT'S NET INVESTMENT IN INTELSAT/EUTELSAT IN RESPECT OF SSO UTILISATION 1993-97

Investment share in the INTELSAT and EUTELSAT

	<i>INTELSAT</i>		<i>EUTELSAT</i>	
	<i>BT</i>	<i>SSOs</i>	<i>BT</i>	<i>SSOs</i>
1993	7.9%	0.02%	13.6%	3.05%
1994	7.1%	0.25%	16.8%	3.80%
1995	6.4%	0.38%	15.5%	4.10%
1996	6.0%	0.56%	10.6%	4.40%
1997	5.7%	0.84%	10.3%	4.70%

Source: BT

Total of Signatories' capital invested in INTELSAT and EUTELSAT

	<i>INTELSAT \$m</i>	<i>EUTELSAT ECUm</i>
1993	1648	62
1994	1705	80
1995	1595	115
1996	1653	168
1997	1742	173

Source: BT

Net capital investment in INTELSAT and EUTELSAT for BT and SSOs

	<i>INTELSAT \$M</i>		<i>EUTELSAT mECU</i>	
	<i>BT</i>	<i>SSOs</i>	<i>BT</i>	<i>SSOs</i>
1993	130.5	0.3	8.4	1.9
1994	121.4	4.3	13.5	3.0
1995	102.1	6.0	17.9	4.7
1996	98.4	9.3	17.8	7.4
1997	98.9	14.7	17.8	8.1

Source: BT